

Please amend the claims to read as follows:

1. (Currently Amended) A pretreatment process for solid sedimentary iron ore lump feed material for a direct reduction processes to reduce the formation of fines, comprising:

storing solid lump feed material ~~in a stockpile~~ for a predetermined time of at least one month in an open atmosphere, therein providing time to release ~~releasing~~ internal stresses of the sedimentary lump ore;

reclaiming the solid lump feed material stored for at least one month; and

pre-drying the solid lump feed material to a temperature less than 200° C and to a water content less than about 0.5% by weight prior to charging the feed material to a gas-based direct reduction furnace.

2. (Cancelled)

3. (Cancelled)

4. (Previously Presented) A process according to claim 1, wherein said pre-drying is accomplished in a feed storage bin by introduction of waste off-gases.

5. (Previously Presented) A process according to claim 4, wherein the waste off-gas temperature is in excess of 300° C upon introduction into the feed storage bin.

6. (Original) A process according to claim 4, wherein said waste off-gases are removed from a reformer associated with the direct reduction process.

7. (Currently Amended) Apparatus for pre-drying lump iron ore and utilizing the pre-dried iron ore lump feed material, comprising:

means for storing sedimentary iron ore solid lump feed material for a predetermined time of at least one month in an open atmosphere;

means for reclaiming the solid lump feed material stored for at least one month;

means for pre-drying the solid lump feed material to a temperature less than 200° C and to a water content less than about 0.5% by weight;

a direct reduction shaft furnace having an upper feeding and heating portion, middle gas feeding and reducing portion, and a lower product discharge portion;

means for removing hot gas from the furnace;

reformer means for reforming removed off-gas, including means for heating the reformer by combustion of gas, and means for removing waste combusted off-gas from the reformer;

a feed material storage bin having communication with waste combusted off-gas, wherein said feed material storage bin is a heated and drying storage bin for lump iron ore until the feed material has a temperature greater than 150° C and less than 200° C, and a water content less than about 0.5% by weight; and

means for transporting the heated feed material to the furnace and for charging the heated feed material into the furnace for reduction.

8. (Original) Apparatus according to claim 7 wherein said feed storage bin is enclosed, and said means for transporting the heated feed material to the furnace is insulated.

9. (Previously Presented) A process according to claim 1 further comprising charging the pre-dried iron ore lump feed material into the furnace separately from any lime coated pellet feed material.

10. (Previously Presented) Apparatus according to claim 8, further comprising means for adjusting the temperature of the waste combusted off-gas between said means for removing waste combusted off-gas and said feed material storage bin.